

IN THE CLAIMS

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Cancel claims 1 to 39 without prejudice, and add the following new claims:

- A<sup>2</sup>
40. A fuel processor comprising:
- a means for reacting fuel and water in a reforming reaction to produce a reformed gas containing hydrogen and carbon monoxide;
  - a means for changing liquid water into vapor for said reforming reaction;
  - a means for conversion of carbon monoxide to hydrogen in a water-gas shift reaction to decrease the concentration of carbon monoxide in said reformed gas;
  - a single vessel water heat exchanged multi-staged preferential oxidation reactor that provides hydrogen to a fuel cell stack and that is integrated by more than one means with said fuel cell stack, wherein said preferential oxidation reactor further comprising a means for providing stream of water for maintaining the temperature of said preferential oxidation reactor.
41. The fuel processor of claim 40, wherein said stream of water is obtained by integrating the fuel processor with the fuel cell stack.
42. The fuel processor of claim 41, wherein said stream of water is cooling water from said fuel cell stack.
43. The preferential oxidation reactor of claim 40, wherein each said stage of said preferential oxidation reactor is a tubular reactor comprising a fixed bed of catalyst.